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ABSTRACT

Prompted by dissatisfaction with its information procedures the research department of the Board of Education for Toronto undertook a research project to find new and effective ways of disseminating information about their studies. It was felt that the research information was of little use if it did not reach the interested consumer. Five methods of presentation were prepared: two annotated bibliographies, recorded telephone descriptions, vinyl records, and a photographic poster. Along with a medium each recipient got a brief questionnaire and an order form. Each medium went to approximately one-fifth of the study population--teachers, principals, consultants, department heads, and administrators. The results of the survey revealed that the different types of dissemination media produce various results for different audiences. (Author/SJ)

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A STUDY OF MEDIA FOR
COMMUNICATING RESEARCH INFORMATION

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PREFACE

The Communications Media Study was initiated, designed and implemented by Dr. S. Trieger. The first Research Assistant on the project was Joyce Shore; the second Research Assistant on the project was Dorothy Trieger. Following the data collection and initial analyses, Dr. Trieger was seconded to the Task Force on a full-time basis and later due to budget reductions the department had to suspend work on some projects. Since this project was primarily information for the Research Department, and since the preliminary analyses provided some bases for action, its completion was given low priority. The task of completing the analysis and writing the report was the responsibility of Vivienne Young.

E. N. WRIGHT, Ed.D.,
Director of Research.

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A STUDY OF MEDIA FOR COMMUNICATING RESEARCH INFORMATION

BACKGROUND OF THE STUDY

The Research Department of the Board of Education for the City of Toronto provides an environment of inquiry where teachers and other Board personnel can come to discuss ideas, to find ways of answering questions and starting projects, to obtain help in dealing with statistics and research, and to find out about existing research.

Another function of the Department is to conduct research studies -- this function represents one of the major expenditures of the Department in terms of time and effort. Projects developing from questions raised by administrators, Board members, teachers, and other sources are undertaken.

From 1961, when the Department published its first report until January, 1970, when this study was being planned, a total of 81 reports had been completed. The subjects covered a wide range of interests, including technical studies,[1] reviews of testing materials and development of new testing materials,[2] discussions of learning theories,[3] a major longitudinal Study of Achievement, which had generated ten reports to date, reviews of literature,[4] and twenty-four studies dealing with the particular problems of educating New Canadians.

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1 e.g., Cost Analysis of New Canadian Instruction

2 e.g., Aptitude Testing: A Critical Examination of the Differential Aptitude Tests, Alternative Batteries, and Problems in Prediction

3 e.g., Some Implications of the Theories of Jean Piaget and J. S. Bruner for Education

4 e.g., Need, Culture and Curriculum - Educating Immigrants and Ethnic Minorities

A major concern of the Research Department is disseminating information to its clientele of about 6,000 persons. What is the best way to inform administrators, teachers, consultants, psychologists, social workers, attendance officers and other Board staff of the availability of research reports in which they might be interested? The goal is to inform effectively those who would be interested in a given study with the least amount of nuisance to those who would not be interested in it. Cost factors are also considered - obvicusly general distribution of a report is both haphazard and expensive.

Prior to the planning of this study, the main method of communicating research information to the school system was through an Annotated Bibliography. This document was distributed in bundles to each school with sufficient copies for each staff member, and to the various departments housed in the Education Centre. The Annotated Bibliography contained annotations about one page in length on each of the studies completed that year and provided an opportunity for teachers and others to scan the recent output of the Research Department. An order form in the back could be used to obtain copies of completed studies.

As a starting point in measuring the effectiveness of this method of communication, we can consider the number of requests for reports generated by the Annotated Bibliographies. Naturally, some reports, such as The Draw-A-Classroom Test - Manual and Scoring Categories, would be expected to have a limited potential audience. However, for a report such as The Culturally Deprived in School and Society one would expect to have more requests from a potential audience of 6,000 than the 805 actually received. This figure represents the largest number distributed of any one report, as of the time of this study.

There was an extremely low order rate in 1967; only 6.0 per cent of the school personnel ordered reports. In 1968 the Annotated Bibliography was illustrated in an effort to increase its appeal and again sent to all the schools in bundles with enough for all teachers. Nevertheless the order rate was only 6.1 per cent. A study of the Research Department's own processes of dissemination seemed called for, and the following questions were framed as a basis for investigation.

1. Delivery: was this limited number of requests due to individuals not receiving their own copies of the Annotated Bibliography from the bundles sent to the schools?

2. Channel of Communication: in this multi-media age, was there a more effective medium of communication than print for disseminating research information?

3. Relevance of research report topics: were the topics of the studies of interest to the personnel to whom they were directed?

4. Attitudes towards educational research: to what extent was there a general interest in educational research independent of topic?

5. Effect of background factors: are such factors as age, sex, years of experience, type of position held and grade taught related to one's interest in educational research?

6. "Big Brother effect": was response related to the status of the Research Department as an official agency of the school system, not as likely to be attended to as a communication from an outside agency? Would questions to school system personnel on the effectiveness of the communication they received, and the usefulness of educational research information in their work be affected by the responses being identified or anonymous?

This study was designed to collect information about these six questions.

DESIGN OF THE STUDY

The channel or medium of communication was one of the major components to be investigated. Prior to this study the medium of print (Annotated Bibliography) was the main channel of communication. Eighteen New Canadian studies, which had not been annotated made up the content about which information was to be disseminated. In the present study it was decided to use five different media of communication and to compare the effectiveness of each.

The five media were:

1. The Annotated Bibliography

This presentation was prepared in an unillustrated format similar to previous Annotated Bibliographies. This medium provided a basis for comparison between the traditional presentation and other more novel presentations used in the study. The Annotated Bibliography was prepared on 8 1/2" by 11" paper, covered and stapled.

2. Dial-A-Report

A telephone presentation was decided upon as a convenient method of communicating research information using the auditory channel of communication. Professional script writers prepared six radio-drama type presentations, not more than five minutes in length which together dealt with the reports. Each script dramatized the human problems mentioned in the reports, e.g., a family argument about parent-child conflicts related to school. The scripts were then recorded, using professional actors chosen for their ability to use several "voices" providing a maximum of variety for the minimum expenditure. The tapes were then placed on automatic playback machines attached to six different

telephone lines. Each line had a numerical counter which recorded the number of times that line was activated by an incoming call.

The study population assigned to this presentation, received a wallet size announcement card which listed the six telephone numbers and the numbers and titles of the research reports represented by each number.

3. File Cards

The same annotations used in Medium 1 were printed on both sides of 3" x 5" file cards and presented in a clear plastic container.

4. Records

The same tapes prepared for the telephone presentation (Medium 2) were reproduced on 7" flexible vinyl records. Three records, recorded on both sides, made up a complete set. The label in the centre of each record listed the research reports recorded on that side. The records could be played on any standard record player at 33 1/3 r.p.m.

5. Photographic Poster

A large wall poster, 24" by 36" designed to suggest human situations studied in the eighteen reports on New Canadians, was sent to the remaining study population (slightly more than one-fifth of the population). One side was reverse printed (white figures on black background) and contained graphic representations and the printed names of the three countries of origin emphasized in the reports -- China, Italy and Greece. The reverse side contained photographs from each country representing a street scene, typical housing, and a school setting from each of the three countries. A very brief text gave an overview of the theme of all the reports.

The Questionnaire

All teachers and academic personnel received one of the five presentations addressed to his home to ensure delivery. In addition to one

of the five presentations described above, each person received in his package a brief questionnaire and order form, return postage prepaid (see Appendix A). The questionnaire asked the recipient to rate the effectiveness of the medium he had received on a five-point scale from "very effective" to "not effective." Because the reports in this study dealt with only one area of possible interest, the second question asked the recipient if he wished to be notified of research reports on topics other than the education of New Canadians. In addition, the respondent could indicate whether or not he wished to receive copies of the media report when completed.

In an attempt to find out the general interest in educational research, the question was asked, "How useful is research information in your work?" with a five-point scale from "very useful" to "not useful" provided. Also included in the questionnaire was an item indicating the report numbers which could be ordered through the Research Department. Any, all, or none could be circled.

There were 5,681 persons in the Toronto school system who were sent the special media presentations on educational research. Of this number, 4,724 received one of the five media together with a questionnaire order form addressed to the Research Department: the form had a computer label which identified the sender. The balance of 957 persons were also divided into the five media groups. However, the questionnaire and order forms were on separate cards and contained no identifying label. This anonymous questionnaire was addressed to an idependent research organization. The order card, on which of course they had to sign their name and address, was preaddressed to the Research Department. The anonymous questionnaire cards, after being collected by the independent research organization

were compared to the identified responses of the major study population. This gave a basis for deciding if there had been a "Big Brother effect."

Table 1 summarizes the various tasks required of the recipient by the five media and provides one method of contrasting the media. The reader may wish to pause here and consider which medium he would expect to generate greatest response or to be considered the most effective in relaying information.

TABLE 1
TASKS OF RECIPIENTS OF EACH MEDIUM

Annotated Bibliography	Dial-A-Report	File Cards	Records	Poster
1. No special setting required	1. Setting requires telephone	1. No special setting required	1. Setting requires record player	1. Setting requires large surface area
2. Material can be self-paced	2. Requires exclusive attention for 4 1/2 minutes (x 6)	2. Material can be self-paced	2. Material can be self-paced	2. Material can be self-paced
3. Easy to manipulate	3. No manipulation other than dialing required	3. Easiest to manipulate	3. No manipulation other than putting record on player required	3. Fairly easy to manipulate
4. Easy to transport	4. n/a	4. Easy to transport	4. Easy to transport	4. Fairly easy to transport
5. Material available for reuse and checking	5. Material unavailable after 6 weeks	5. Material available for reuse and checking	5. Material available for reuse and checking	5. Material available for reuse
6. Material fairly closed	6. Requires abstraction (material open-ended)	6. Material fairly closed	6. Requires abstraction (material open-ended)	6. Requires abstraction (material open-ended)
7. Expected presentation	7. Unexpected presentation	7. Unexpected presentation	7. Unexpected presentation	7. Unexpected presentation

RESULTS

Most questionnaires were returned to the Research Department or the independent research organization within a period of six weeks (45 days). The data analysis is based on the responses over this time period. A test of proportions showed the overall response rate for the identified population was significantly higher than for the anonymous population. This shows either that people are more likely to respond if they know that they can be identified or that they are more willing to co-operate with head office, than with an unknown research organization. Response rate differed significantly, for the various media, in both the identified and anonymous populations (χ^2 = 84.73 and 16.85 respectively, d.f. = 4). In the identified population the file cards had the highest response rate. The poster had the highest response rate in the anonymous population. The records had the lowest response rate in the anonymous population, the Dial-A-Report had the lowest response rate in the identified population (see Table 2).

The data were also analysed in order to find out which medium had generated the fastest response rate. The poster consistently generated the most rapid response while the Dial-A-Report was consistently the slowest (Table 3).

A differential comparison was also done on order rate across the media. The data are presented in Table 4. Here we find that the poster has the highest percentage of orders, 24 per cent, while the records have the lowest, 11 per cent. A total of 5,298 reports were ordered during the 45 days of the study. The average number of reports ordered pe:

TABLE 2

PERCENTAGE OF QUESTIONNAIRES RETURNED FOR THE FIVE MEDIA

	Annotated Bibiography	Dial-A-Report	File Cards	Records	Poster	Total
Number sent to identified population	928	979	832	855	1130	4724
Number sent to anonymous population	130	217	215	252	143	957
TOTAL	1058	1196	1047	1107	1273	5681
% Questionnaires returned by identified population	19.82	17.46	31.97	19.06	28.40	23.39
% Questionnaires returned by anonymous population	16.92	16.58	24.18	12.30	25.87	18.60
% Questionnaires returned by combined populations	19.47	17.30	30.37	17.52	28.12	22.58

TABLE 3

SPEED OF RETURN EXPRESSED
AS A CUMULATIVE PERCENTAGE

Day		Annotated Bibliography (N=208)	Dial-A-Report (N=203)	File Cards (N=316)	Records (N=198)	Poster (N=359)
0-5	%	14.42	.49	14.87	10.10	16.99
	Rank	3	5	2	4	1
6-10	Cumulative %	51.92	23.64	55.69	46.46	58.21
	Rank	3	5	2	4	1
11-15	Cumulative %	66.82	49.26	68.98	58.08	76.32
	Rank	3	5	2	4	1
16-20	Cumulative %	81.73	70.93	82.91	74.24	88.02
	Rank	3	5	2	4	1
21-45	Cumulative %	100.00	100.00	100.00	100.00	100.00

TABLE 4

ORDER RATE BY MEDIUM

	Number of Reports Ordered	Number of Orders	Percentage Ordering	Rank
Annotated Bibliography	1,058	170	16.06%	3
Dial-A-Report	1,196	142	11.87%	4
File Cards	1,047	197	18.81%	2
Records	1,107	118	10.65%	5
Poster	1,273	300	23.56%	1

person is included in Table 4. On this index the records rank first with an average of 6.1 reports per order while the Annotated Bibliography is last with an average of 4.9 reports per order.

Besides orders for the listed research reports on New Canadians, it was felt that the order rate for the future media report studying the different media, i.e., this report, might show some interesting response patterns. However media made only a modest difference in their requests for this report. Over three-quarters of the respondents asked for a copy of this study which of course was a piece of research in which they had participated.

The Research Department was also concerned about the general interest in research reports independent of topic. Approximately 85 per cent of the combined populations responded positively to the statement, "I would like to be notified of Research Reports on topics other than the education of New Canadians." There were no significant differences among media or between the populations.

At the core of this investigation was the Research Department's concern with disseminating literature to those in the school system, effectively making them aware of the ongoing research. Thus one of the questions on the questionnaire read "Please rate the effectiveness of this presentation in informing you of available Research Reports." Respondents were asked to rate the effectiveness of the medium they received on a five-point scale from "very effective" to "not effective" (Table 5). For the identified population 59.78 per cent rated their presentation "effective" (1 or 2 on the scale) and 17.65 per cent rated their medium "not effective" (4 or 5 on the scale) the rest were neutral (3 on the scale). However in the anonymous population only 46.63 per cent rated their medium as "effective" and 28.09 per cent rated it as "not effective". A test of proportions shows that this was significantly less

TABLE 5

EFFECTIVENESS RATINGS OF MEDIUM RECEIVED

Rating	Annotated Bibliography	Dial-A-Report	File Cards	Records	Poster	Total
Identified Population						
N	184	168	264	163	320	1099
"Effective"	73.37%	54.17%	73.48%	54.60%	46.25%	59.78%
"Not Effective"	4.89%	18.45%	8.71%	23.31%	29.06%	17.65%
Anonymous Population						
N	22	36	52	31	37	178
"Effective"	72.72%	44.44%	50.00%	41.93%	32.43%	46.63%
"Not Effective"	18.18%	25.00%	25.00%	32.26%	37.84%	28.09%

NOTE: Chi-Square for identified population = 79.04 - significant at .0005 level.

Chi-Square for anonymous population = 6.24 - not significant.

positive and again suggests that respondents were influenced by the fact that they could be identified. As can be seen from the table the identified population rated both the Annotated Bibliography and the file cards as very effective while the other three media were viewed less positively. The poster was viewed as least effective. With the anonymous population only the Annotated Bibliography retained a high rate of effectiveness; once again the poster was seen as the least effective. Rankings were established across the media for effectiveness by combining the identified and anonymous populations. The file cards were first, the Annotated Bibliography came second while the Dial-A-Report records and poster media came third, fourth and fifth respectively. It is noteworthy that the two print media were rated "effective" by both populations.

Ranks were assigned to the five media on four of the criteria discussed above: response rate, rate of return i.e. speed, percentage ordering, and the "effectiveness" rating by respondents. In order to ascertain the degree of agreement between these criteria, Kendall's coefficient of concordance was used. The results showed a significant agreement (Table 6).

The rankings for response rate, speed of response and order rate, it can be seen, are fairly similar. It is only when we look at the rankings for the poster that a clear inconsistency shows up. Respondents who received the poster ranked it the least effective but had the highest percentage ordering, the fastest response and in response rate were second only to the file card recipients. The file cards and the Annotated Bibliography stimulated a more consistent type of response. The Annotated Bibliography is rated as the most effective but did not stimulate a high response rate, a fast response rate or a high order

TABLE 6

COMPARISON OF MEDIA POTENCY
RANKED BY VARIOUS CRITERIA

Media	Response Rate*	Speed of Response**	Percentage Ordering[a]	Perceived Effectiveness[b]
Annotated Bibliography	3	3	3	1
Dial-A-Report	5	5	4	4
File Cards	1	2	2	2
Records	4	4	5	3
Poster	2	1	1	5

Kendall's coefficient of concordance W = .5625 significant at .05 level.

NOTE: Identified population is used here; only respondents who ordered and therefore could be identified were used from the anonymous population.

* See Table 2
** See Table 3
a See Table 4
b See Table 5

rate. The file cards seen as the second most effective are second also in speed of response and order rate and generated the highest response rate.

In the response to the question "How useful is educational research in your work?", 51.22 per cent of the identified respondents rated research "useful" (1 or 2 on the 5 point scale) while 14.28 per cent rated research information "not useful" (4 or 5 on the 5 point scale). Again, however, a lower percentage of the anonymous respondents (40.44 per cent) rated educational research information "useful" and a quarter (26.40 per cent) rated research information "not useful". Again there was a significant difference in proportion between the identified and anonymous populations (Table 7).

The computer labels made it possible to look at characteristics of the respondents. When considering age as a factor in the response rate, those in the 46 - 50 age group had the largest percentage response, 29.10 per cent. The next largest return was from the 36 - 40 age range (27.48 per cent) followed closely by the 31 - 35 age group with a 26.89 per cent response. Age is significantly related to response rate ($\chi^2 = 34.76$, 9 d.f.).

A larger percentage of the male population (25.79 per cent) responded than the female population (19.96 per cent) ($\chi^2 = 26.75$, 1 d.f.). Response rate was also analysed in terms of type of position held and grade taught. The greatest percentage response was from administrators in the schools, with a 28.63 per cent response from the identified population. Administrators in a Kindergarten to Grade 6 had the greatest percentage return. The response from teachers was considerably less, with teachers in the senior public schools (Grades 7 & 8) responding

TABLE 7

COMPARISON OF RATINGS BY IDENTIFIED AND ANONYMOUS POPULATIONS ON USEFULNESS OF RESEARCH*

	Identified (N = 1099)	Anonymous (N = 178)	Total
"Useful"	51.22% (N = 563)	40.44% (N = 72)	635
"Not Useful"	14.28% (N = 157)	26.40% (N = 47)	204
TOTAL N	720	119	839

* Question Read: "How useful is educational research information in your work?"

NOTE: Chi-square = 17.38 -- Significant at .001 level.

in the greatest proportion, 24.65 per cent. Education Centre administrators had a 21.05 per cent response; resource personnel 27.69 per cent.

The factors of age, sex, school size, position held, and years of experience can be discussed in relation to the question of usefulness of research. There was not a significant difference in the response to this question where age or sex are considered as factors. There was however a significant difference ($\chi^2 = 32.28$, 6 d.f.) where school type is a factor (Table 8). Teachers in collegiates found it least useful while special vocational and senior school teachers found it most useful. Many of these differences, it could be argued, related to the content of the reports all of which dealt with New Canadians. Years of experience or type of position held did not make a significant difference to the response to this question.

When asked about seeing last year's Annotated Bibliography 56 per cent reported not receiving it. There were no significant differences among media in the answers to this question. This high figure seemed to justify the personal mailings.

TABLE 8

USEFULNESS OF RESEARCH IN RELATION TO SCHOOL LEVEL

Type of School	"Useful"
Junior (K - 6) N = 385	56.62%
Senior (7 - 8) N = 117	60.68%
Combined Junior/Senior N = 200	58.50%
Collegiate N = 63	42.86%
Technical - Commercial N = 138	46.38%
Special Vocational N = 42	71.43%
High School N = 51	52.95%

NOTE: Chi-square = 32.28 significant at the .0005 level.

FOLLOW-UP STUDIES

Follow-up 1971

On the basis of the general favourable rating on all criteria for the file cards it was decided to send 1970's Annotated Bibliography of the research reports in this form. This mailing was in January, 1971. From the results of the Communication Media Study it was noted that 56 per cent of the respondents indicated that they had not received their 1968 - 69 Annotated Bibliography. This was considered good evidence for changing mailing to the home address rather than distributing Annotations to the schools. File cards were sent only to those respondents from the Communications Media Study who responded positively to the statement, "I would like to be notified of Research Reports on topics other than the education of New Canadians". This seemed to be a potent target audience. Out of these 1,074 some 280 sent back their return order cards giving an order rate of 26.07 per cent, a higher order rate than ever before and 96.43 per cent sent their orders in within the first three months. However this high order rate is not so reassuring when one considers the selective nature of the mailing which went to less than a quarter of the population. A more economical procedure for mailing to every person was indicated.

Follow-up 1972

In 1971 - 72 the Research Department devised a new medium for disseminating information about its reports which would incorporate the positive features from the most successful media used in the Communications

Media Study. The order rate from the selectively distributed file cards in the previous year represented only a 4.67 per cent order rate with respect to the total population, not as good as the order rate from the Annotated Bibliography in 1968. Using the rankings from Table 6 it was noted that three media: the Annotated Bibliography, the file cards, and the poster, were first on at least one of the four criteria of potency. The Annotated Bibliography was perceived as most effective, the file cards had the highest response rate, and the poster had both the fastest response and more important, the highest order rate. Therefore a new medium needed to have printed copy, be brief, be compact and be attractive. Two further important considerations were economy and time. Circumstances delayed mailing until early June, a poor time for a mailing. Also the cost per person had to be minimized. An artist prepared a mini-poster for one side of a single piece of light-weight cardboard and brief abstracts were printed on the reverse. An order card was attached at the bottom of the poster which was perforated so it could be removed and used, leaving both poster and abstracts intact. It was hoped that this device would be both cost-effective and positively viewed.

By the last day of school 888 order cards had been returned. After 28 days, the order rate was 15.71 per cent of the total number of recipients. This was considered a remarkable response in light of the attendant conditions. The time of year was poor and secondly, three of the ten reports had been widely distributed for a year or more. Report #91, the Every Student Survey, had had newspaper publicity in December of 1970, and a copy had been sent to each school in January 1971; 218 additional copies had been ordered within the system, yet a further 692 copies were ordered after the mini-poster was distributed. Report #92, about West Indian children had been announced in the principal's weekly

letter a year before and 440 copies had been ordered before the mini-poster was distributed, yet 441 were ordered from the mini-poster. Principals were also informed of Report #96, Portuguese in Transition, via the weekly newsletter and 383 were ordered, then 10 months later 385 were ordered from the mini-poster. The principal's letter appears to miss approximately one-half of the interested readers: a similar proportion reported not receiving an Annotated Bibliography which had been sent in bundles to the schools. To actually send a single copy of a report to each school seems even less effective. It should be noted that the three reports cited, are ones in which there was, and is, considerable interest, and they were the reports with the most extensive distribution prior to the circulation of the mini-poster.

According to the cost analysis the mini-poster was less expensive than even the old style Annotated Bibliographies. As a medium for disseminating information it seems to be the best alternative on a cost-effective basis. By mailing it to each teacher personally, it reaches the total potential audience and it does not discriminate against potential users by limiting distribution to a select group.

COST ANALYSIS

In order to establish which medium was the least expensive, a thorough cost analysis was attempted. All costs were calculated on a per unit basis i.e. cost per person, as if the medium were the only one used and had been prepared for the entire system population; mailing costs were not available. Medium 1 - the Annotated Bibliography was the cheapest at 28¢ per unit. For the file cards preparation costs of typing and layout were the same as for the Annotated Bibliography, however using card stock instead of paper increased the expense of the file cards. The file cards cost 66¢ per unit; this could have been reduced to 56¢ if no plastic holder had been used for the cards. The photographic poster was fairly expensive to print, and required special paper; the artwork and photography charges were modest. The cost per unit of the poster was 75¢. Much preparation was required for the records and the Dial-A-Report media. Scripting and the use of professional actors were common to both, however the technical services differed greatly. The majority of the expenses for the Dial-A-Report were involved with the costs of the telephone playback system. Printing charges for the "calling" cards with the phone numbers, were slight. The cost per unit of the Dial-A-Report was 44¢, the second least expensive of the media. The most expensive medium was the records at 78¢ per unit. The recording services and the cost of printing the records, (there were three recorded on both sides,) made up over 75 per cent of the total cost.

A cost analysis was also done to calculate the cost per person of the mini-poster used in 1972. Art work and preparation costs were

modest. It had to be printed on a stock heavy enough to use for the postcard portion: by careful selection of inks and using a glossy surface on one side only a dramatic effect was achieved at low cost. An effort was made to keep the weight under an ounce but with the envelope it weighed just over an ounce. The total cost per poster was 13.28¢ plus 14¢ postage. However the all inclusive cost per person of 26¢ was cheaper than the old style Annotated Bibliography excluding mailing.

SUMMARY

Prompted by dissatisfaction with its information procedures the Research Department undertook a research project to find new and effective ways of disseminating information about their studies. It was felt that the research information was of little use if it did not reach the interested consumer. Five methods of presentation were prepared in both contemporary and traditional format. The Annotated Bibliography, a brief booklet containing annotations on the reports had been used prior to this study and was included as Medium 1. The second medium was a new presentation now being used quite frequently by commercial firms. The subject received a calling card with six 'phone numbers and corresponding titles of research reports. When he called he heard a short 4½ minute sketch on the topic using professional actors and actresses. This auditory method was certain to be accessible to all recipients but required them to be motivated enough to call. Medium 3 was exactly the same as the Annotated Bibliography in content, however it was printed on 3" x 5" file cards and enclosed in a clear plastic folder. The same recordings used in the Dial-A-Report were printed on 7" vinyl records. Three records, recorded on both sides made up a complete set. The records could be played on any standard record player at 33 1/3 r.p.m. Medium 5 was also a print medium however it was presented in the form of a large, glossy, black and white photographic poster. The majority of the poster was taken up by graphics and photographs with a minimum of printed copy. Along with a medium each recipient got a brief questionnaire and an order form. Each medium went to approximately one-fifth of the study population -- teachers, principals, consultants, department heads, and administrators.

The population was split into two groups: those who received their packages with questionnaire and order form addressed to the Board of Education and those whose questionnaire was addressed to an independent research organization. The first group had computer name labels attached to their forms so they knew they could be identified if they returned their questionnaires. This was the identified population (N = 4724). The remaining questionnaires had no identifying labels however if an order was placed the subject had to identify himself. These people made up the anonymous population (N = 957). The population was split into "identified" and "anonymous" in order to ascertain whether or not the identified sample would be more likely to respond to a known official agency or to an outside organization.

The response generated by these media was far greater than had been the case in previous years. Over a period of 45 days, approximately 23 per cent of the identified and 18 per cent of the anonymous population returned their questionnaires. The order rate rose to approximately 16 per cent for the combined populations. From the analysis of the questionnaire responses, it was found that only 40.47 per cent reported receiving an Annotated Bibliography in the previous year while 6.65 per cent had received it but not looked through it. A large percentage of respondents, 56.30 per cent indicated that they had not received it. Therefore the Research Department concluded that sending the Annotated Bibliographies in bulk to the schools was an inadequate method of reaching people.

The response rate, the order rate and the speed of response were compared across the media. It was found that these figures differed both across the media and between the populations. The highest response rate in the identified population was had by the file cards, the lowest by the Dial-A-Report. In the anonymous population the poster had the highest

response rate and the records the lowest. The poster generated the fastest response over the combined populations with the file cards and the Annotated Bibliography close behind. The two auditory media were the slowest in response rate. The poster also generated the highest order rate; the file cards were second but with a considerably lower percentage of ordering. The two auditory media were again lowest.

The questionnaire contained two rating scales for the respondents to fill out, one on the effectiveness of the medium he received in informing him of research reports available and one on the usefulness of research reports. 59.78 per cent of the identified population rated their medium as effective (1 or 2 on a five-point scale) while only 17.65 per cent rated their medium "not effective" (4 or 5 on the scale). A lower percentage (46.63 per cent) of the anonymous population rated the medium as effective and a higher percentage (28.09 per cent) rated the medium "not effective." This suggests that the anonymous population was more frank in their ratings. By combining populations and ranking the media in terms of the effectiveness rating it was found that the Annotated Bibliography was by far the most popular with 73.30 per cent of the respondents ranking it effective. The file cards were next with 69.62 per cent. The two auditory media are almost tied, Dial-A-Report 52.45 per cent and the records 52.57 per cent, in terms of their respondents' ratings of effectiveness, while the poster was last with only 44.81 per cent.

The response to the question of usefulness of research information indicated that the identified population found research useful more often (51.22 per cent) than the anonymous (40.44 per cent) whereas a higher percentage of the anonymous population rated research "not useful"

(26.40 per cent) than the identified (14.28 per cent). This also may be taken as an indication of frankness on the part of the population who knew they could not be identified.

Rankings were assigned to the media on four different criteria: response rate, speed of response, order rate, and the perceived effectiveness by the respondents. There was a high degree of consistency between the rankings of the behavioural measures i.e. response, speed, and ordering; however, the rankings almost reversed themselves in terms of perceived effectiveness. Respondents who received the poster returned their questionnaires fastest and had the highest order rate yet had the lowest percentage rating the medium as effective. The Annotated Bibliography had the greatest percentage of respondents who rated it effective but came only third on response, speed, and ordering. The most consistent was the file cards which came first in response rate and second on speed, order rate and perceived effectiveness.

When looking at the respondents themselves, it was found that more males responded than females. The greatest percentage response came from administrators in the schools, with response from teachers lower. The response to the question on usefulness of research information varied significantly with school level; the vocational respondents rated research "useful" in a higher proportion than any other type of school. Respondents associated with collegiates rated research "not useful" in the highest proportions. School level did not relate significantly to the question of effectiveness of media.

In considering the results of the study several related indices of success were devised for a medium for future communication with people in the school system: if a large response is wanted then it

seems likely that the file cards medium would do this: if a high order rate was desired a medium like the poster would probably be effective; if the concern is for speed of response, the poster medium would be the best. However, if we wanted to have the audience perceive the poster as effective, we would have to add a large amount of printed copy since according to the study the respondents saw the old style Annotated Bibliography as the most effective. Not surprisingly the print media were the most suitable for this population and were viewed as most effective as visual media are emphasized by schools and print, i.e. reading, is still considered fundamental by most people in our society. Follow-up work took place in 1970 - 1971 and in 1971 - 1972.

For 1970 - 1971 the file cards were chosen as the medium for sending out information about current research reports. To economize, these were sent only to those who had indicated on their questionnaires the previous year that they wished to be notified of future reports. They were sent to the home addresses since over half of the respondents had noted on their questionnaires that they had not received an Annotated Bibliography in 1969. The order rate rose to 26.07 per cent, which although higher than ever before was not very satisfactory considering the limited number of recipients. Therefore in 1972, the Research Department attempted to devise a new medium which would combine the positive features of the five media used in the Communications Media Study. As was seen from Table 6, the Annotated Bibliography was perceived as the most effective and the file cards had the highest response rate thus it was decided that a new medium must incorporate printed copy into its design. However, the poster had two positive

attributes: it generated the fastest response rate and the highest order rate. Economy was also an important factor. According to the cost analysis a large standard poster would be too expensive to send to the total population. A further important consideration was the time factor. Due to unavoidable circumstances the mailing was delayed until June. Taking into account all these factors it was decided to have an artist devise an attractive and relevant mini-poster for one side of a single piece of light weight cardboard with very brief annotations on the reverse. An order card was incorporated at the bottom of this poster and could be removed without destroying the poster motif. The poster cost less per person for both production and mailing than the previous Annotated Bibliographies. By the last day of school, 17 days after the mini-poster had been sent out 888 order cards had been received. After four weeks the order rate had risen to 15.71 per cent of the total number of recipients. This was considered successful considering the time of year and especially because several of the reports had been available for more than a year and had had prior publicity and extensive distribution.

APPENDIX

Copy of Questionnaire Used for Identified Population

The Research Department is conducting a study to determine which of several methods of presentation is most effective in informing you about its Reports of recently completed studies. Please check the items below, and return this pre-stamped card:

1. Which method of presentation did you receive with this card? File Cards ☐ Annotated Bibliography ☐ Photographic Brochure ☐ Recordings ☐ Dial-a-Report ☐

2. Please rate the effectiveness of this presentation in informing you of available Research Reports.
   Very Effective ___|___|___|___|___ Not Effective

3. On the basis of the information obtained from this presentation,
   (a) I wish to receive the Report(s) circled below:
   60 61 62 — 64 65 66 67 68 69 70 71 72 73 — — 76 77 78 — 80 81
   (b) I do not require any of these Reports at this time. ☐

4. I would like to be notified of Research Reports on topics other than the education of New Canadians. Yes ☐ No ☐

5. Did you look through last year's Annotated Bibliography even if you did not order any Research Reports from it? Yes ☐ No ☐ Did not receive it ☐

6. How useful is educational research information in your work?
   Very Useful ___|___|___|___|___ Not Useful

NOTE: When this study of the effectiveness of different forms of presenting information about research is completed, would you like to receive a copy of the Report? Yes ☐ No ☐